Water Use Measurement
Agenda Item 7-7

Resolution 04-04-01
Authorizing the Director, or his Designee, to Work with the State Administration and the Legislature on Implementing the Staff Proposal for Water Use Measurement

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Water Use Measurement

- Review Process
- Why Measurement is Important
- * Questions from February Meeting
- Review Proposal Elements
- Cost Estimate
- Authority Action Request

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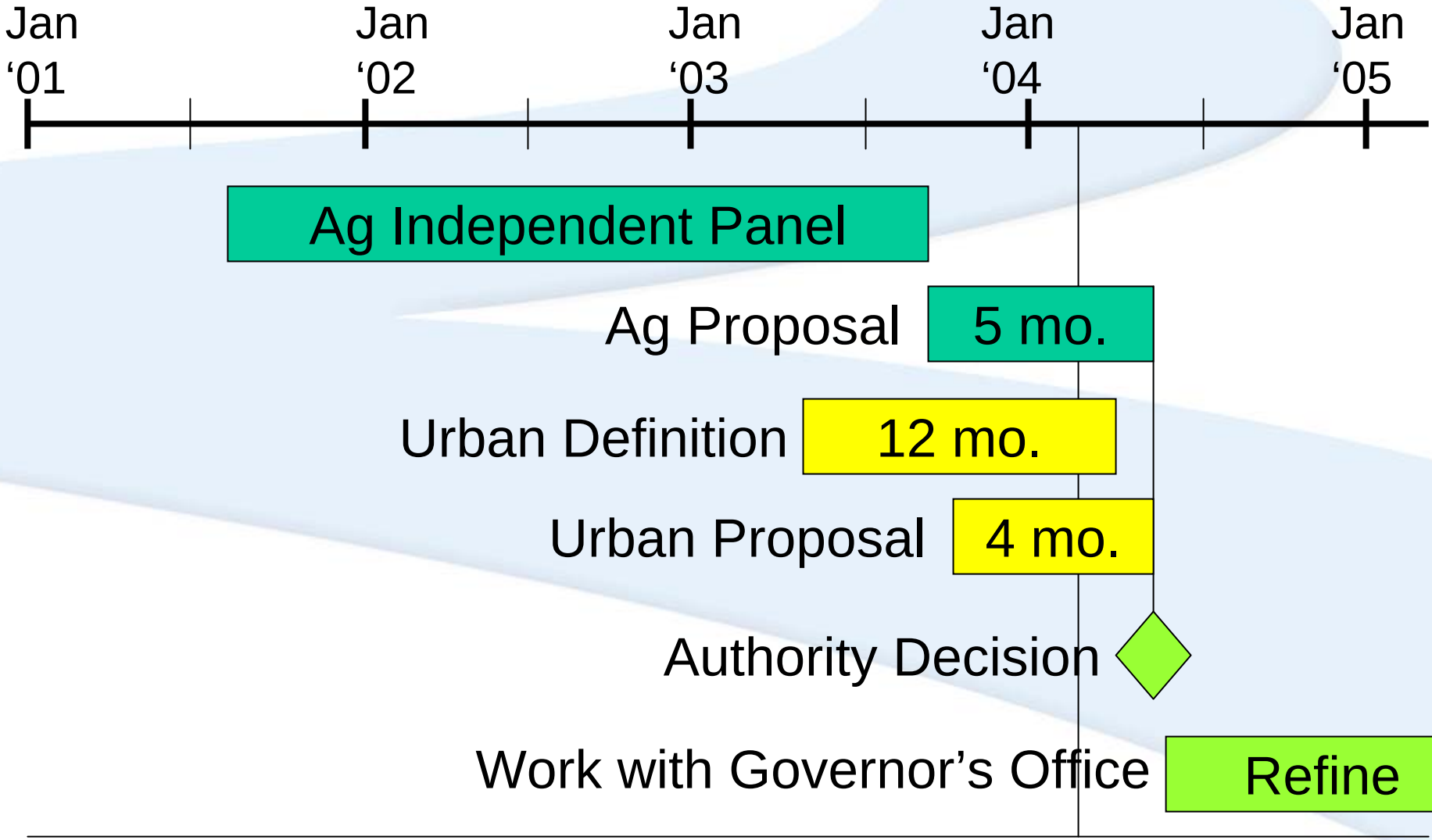
Review Process - Timeline



Measurement is Important

Tulare Regional Water Balance	Dry Year	
	Applied	Depletion
Urban Use		
Applied Water	664	
ETAW		232
Conveyance Losses	13	13
Flows to Groundwater	1	
Agricultural Use		
Applied Water	9,934	
ETAW		7,318
Irrecoverable Losses		920
Outflow	195	
Conveyance Losses	591	
Flows to Groundwater	49	
Environmental Use		
Applied Water	1,040	
ETAW		38
Supply		
Local Deliveries	1,713	1,636
Net Groundwater	4,415	4,366
Imported Water	2,640	2,520
Reuse of Water	3,524	

B-160 Regional Profile

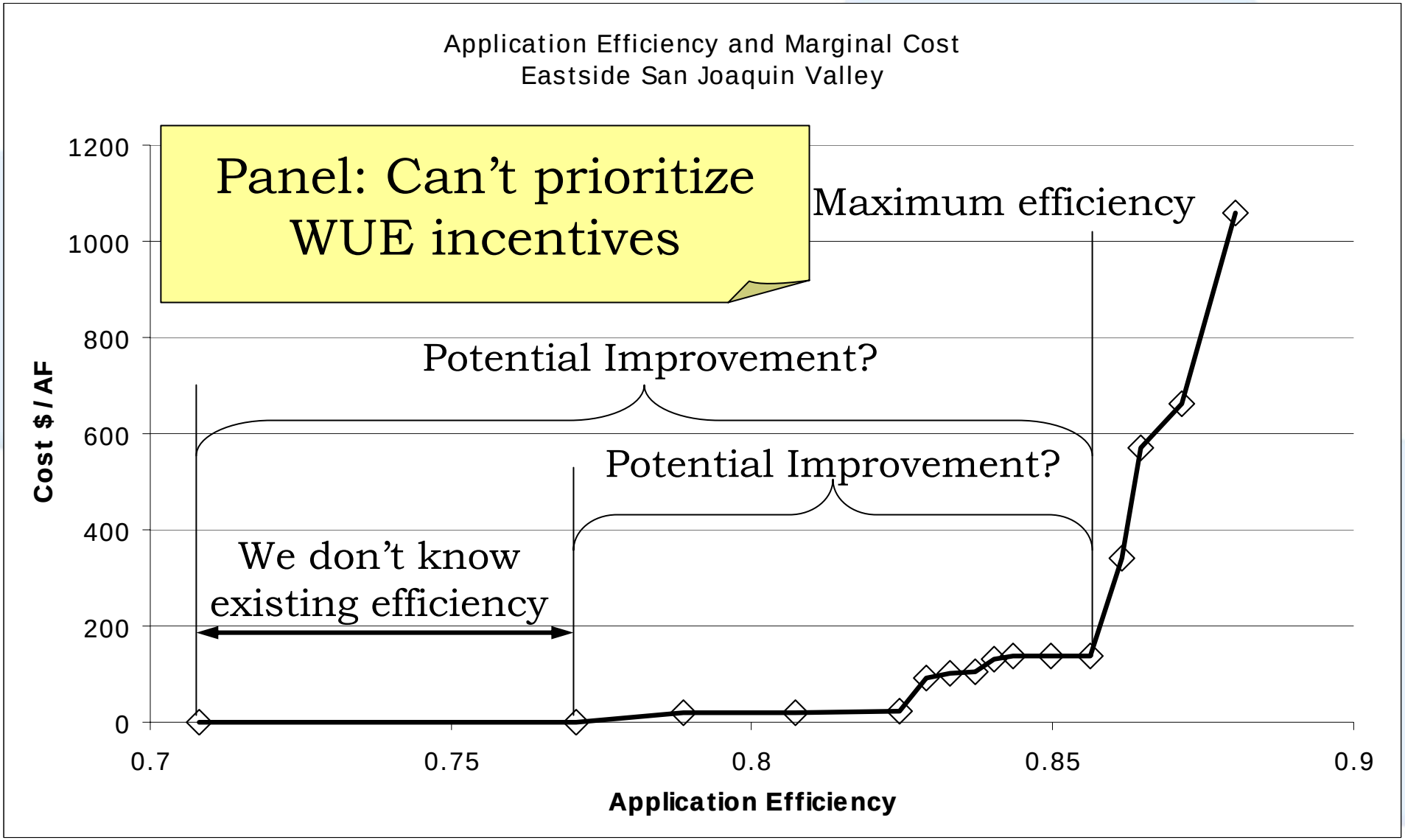
Panel: Need Good Data

-Make investment decisions (storage)

-Reduce disputes

-Plan for the future

Measurement is Important
- Costs & Benefits -



Questions from February - Urban Costs & Benefits -

Urban Measurement *– Central Valley*

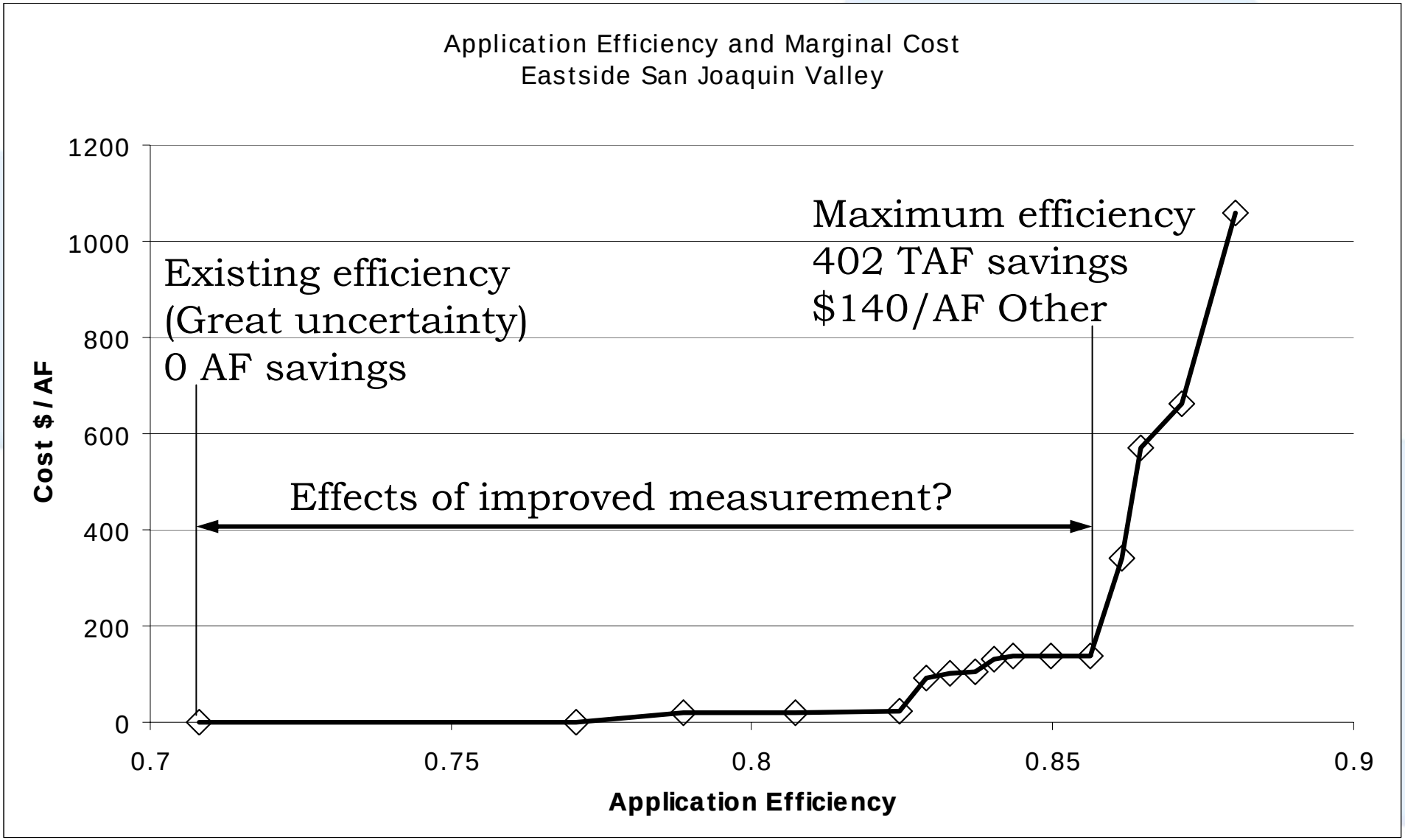
- Application Reduction: 10-30% (Avg 20%)

This extends urban supply

- Benefits:
  - 120 to 180 TAF reduced application(Avg 150 TAF)
- Costs: $22 to $64M/yr (Avg $43M)
  - Split between Local & State is site specific
- Unit Cost: $175 to 525/AF (Avg $350/AF)

At the tap

Questions from February
- Improved Farm-gate Accuracy -



Questions from February - Farm-gate Costs & Benefits -

Agricultural Measurement

- Application Reduction (at **FARM;** coupled with other programs)
  - Sac Valley: 0-9% (Avg 5%)
  - E. Side San Joaquin: 0-14% (Avg 7%)
- Benefits:
  - 0 to 1,482 TAF reduced application (Avg 741 TAF)
  - Credible data - can make better decisions
- Costs: $22 to $84 M/yr (Avg $53M/yr)
  - ($22M is measurement; $0 to $62M is other)
- Unit Cost: $29/AF to $56/AF (Avg $43/AF)

Not in Proposal

Does not extend supply

At the river

Questions from February - Make the Business Case -

- State agencies will use data
  - More efficient reporting
  - Central database
  - Clearer data requests
- Urban reporting costs: long-term savings
- Built-in flexibility to adjust thresholds

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Overview
- Measurement Proposal -

Action	Ag	Urban
1) Consolidated Reporting	Data protocols, database, fewer reports	
2) Measure/Report Sources	Meas. over 50 cfs (new for 20%), Report over 50 cfs L	Measure & Report (not new)
3) Measure/Report Deliveries	Measure directly & indirectly (not new) L Report over 2,000 af	Meters (new for 7%), Report (not new) L
4) Crop ET & Groundwater	ET: satellites	N/A
	Net Groundwater Use	
5) Science	Focused research & adaptive management	

Cost Estimate

Action	Ag ($M/yr)		Urban ($M/yr)	
	Local	State	Local	State
1) Consolidated Reporting	0	0.6	0	0.6
2) Meas/report Sources	0.4	0	0	0
3) Meas/report Deliveries	0.7	0	42.7 (C. Valley)	
4) Crop ET & GW	0	3.0	0	0.5
5) Science	0	1.8	0	1.8

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Cost Estimate

Acti	Ag ($M/yr)		Urban ($M/yr)	
		State	Local	State
1) Consoli Reporting		0.6	0	0.6
2) Meas/report Sources	0.4	0		
3) Meas/report Deliveries	0.7	0	42.7 (C. Valley)	
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5) Science	0	1.8	0	1.8

$7/yr per field
$47/yr per farm

$62/yr per home

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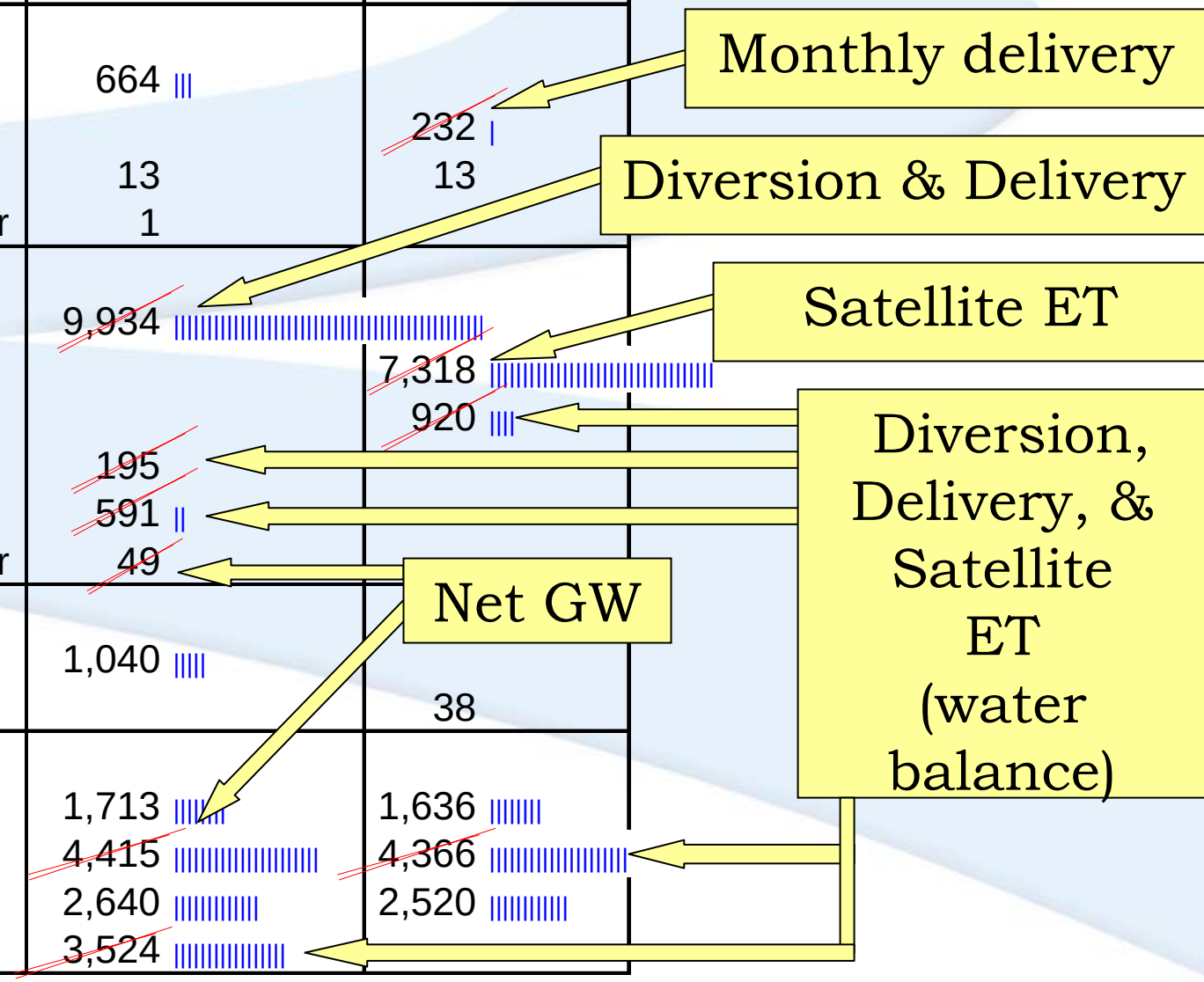

Final Points

Package is capable of being broadly supported

Proposed actions need to remain as a package

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BDPAC & WUE Subcommittee Recommendations

- Package represents appropriate level of staff work
  - More technical or ad hoc stakeholder work is unnecessary
  - Public outreach was sufficient
  - WUE Subcommittee reviewed costs & benefits (3/29 meeting) & supported recommendation
- Recommend that Authority deliberate on this topic at April meeting

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Authority Action

- Staff work is complete: work with the State Administration to refine and implement proposal
  - Final product may include legislation

- Periodic status reports to BDPAC and Authority

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